Serial No. 10/590,231

Atty. Doc. No. 2003P19424WOUS

Amendments to the Claims:

Please amend the claims as shown below:

1.-17. (canceled)

18. (currently amended) The method as claimed in claim 1721, wherein the connection unit is controlled by a control unit, and wherein each field-device terminal of the automation system is selectively connectable to each terminal of the measurement component or excitation component.

19-20. (canceled)

21. (currently amended) The method as claimed in claim 20, A method for identifying connection errors in a field device connected to an automation system, comprising:

supplying a signal to the field device via an excitation component, wherein the field device is selected from the group consisting of a sensor and an actuator;

<u>determining a measurement variable assigned to the field device via a measurement</u> <u>component;</u>

analyzing the measurement variable via an analysis unit;

selecting connection combinations for a plurality of connectors of the field device, at least of a portion of the connected each connected to and a terminal selected from the group consisting of a terminal of the excitation component and a terminal of the measurement component; and

repeating the process of supplying, determining and selecting,

wherein a subsequent selecting uses a different connection combinations,

and further wherein the repetition or the selection of the used terminals depends on the result of the analysis of an earlier measurement.

wherein the connection unit is controlled by a control unit, wherein the connection unit is a switch matrix, wherein the control unit and the switch matrix are elements of an integrated circuit.

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22. (canceled)

23. (currently amended) The method as claimed in claim 22, A method for correcting connection errors in a field device connected to an automation system, comprising:

providing an excitation component that supplies a signal to the field device; providing a measurement component that determines a measurement variable assigned; identifying a connection error;

correcting the connection error via a connection unit that selectively connects field-device connectors and terminals, each terminal selected from the group consisting of a terminal of the excitation component and a terminal of the measurement component; and

wherein controlling the connection unit is controlled by with a control unit, wherein the connection unit is a switch matrix, wherein the control unit and the switch matrix are elements of an integrated circuit.

- 24. (currently amended) The method as claimed in claim 2223, wherein correction of the connection error includes adapting the connection unit to suit the field-device type.
- 25. (previously presented) The method as claimed in claim 24, wherein correcting the connection error comprises comparing with a known configuration between the field device and the automation system and appropriate adjustment of the connection unit.
 - 26. (canceled)